NOTES ON THE GENUS *CLERODENDRUM* (*VERBENACEAE*). XXVII

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CLERODENDRUM Burm.

Additional bibliography: Arthur, Sympos. Phytochem. 241. 1954; Kow, Pharmacog. Stud. Crude Drugs 60. 1966; W. Afr. Journ. Biol. Appl. Chem. 11: 66. 1967; Mold., Phytologia 61: 164--188. 1986.

CLERODENDRUM INGRATUM Lauterb. & K. Schum.

Inflorescence issuing from the axils of fallen leaves, dichasial, regularly twice dichotomous, few-flowered; peduncles 5--6 cm. long; cymes about 8 cm. long; pedicels 5--10 mm. long; calyx infundibular, herbaceous, at first green, later red, about 14 mm. long, the tube 7 mm. long, externally glabrous, divided to about the middle, the lobes oblong-triangular, apically acute; corolla elongate, at first yellowish, later white, in all about 2 cm. long, externally sparsely puberulent, the largest lobe 12 mm. long; stamens long-exserted, about 3.2 cm. long, inserted 2.8 cm. above the base of the corolla-tube; style long-exserted; ovary 2 mm. long; fruit drupaceous, at first dark-green but finally blue-black.

This species is based on *Lauterbach 810* from cultivated ground in front of Singapore House, Finschhafen, Territory of New Guinea, collected on September 25, 1890. Lauterbach & Schumann (1900) remark that "Bei erster Betrachtung erinnert diese Art in der Tracht an *Cl. inerme* Gärtn., sie ist aber schon durch die grösseren, tief getheilten Kelche ganz verschieden".

The species has been encountered in dry, open, grassy, and cultivated areas and in the understory of disturbed lowland-type rainforests, in flower in March and July to November, and in fruit in October.

The corollas are said to have been "white" on *Nyman 818*, "yellowish to white" on *Lauterbach 810* and "yellow to pink" on *Havel & Kairo NGF 17288*.

Hartley & his associates (1973) report alkaloids present in the leaves and fruit of this species, based on a number *10218* collection from Markham Valley, New Guinea, but bulk material, they say, was not available for accurate measurement.

Lam (1924) cites *Lauterbach 810*, *Nyman 818*, and *Weinland 245* & *271* from northeastern New Guinea. In his 1919 work he asserts that the species is closely related to *C. kalaotoense* H. J. Lam which has larger leaves, the calyx and corolla-lobes are smaller, and the corolla-tube is externally glabrous.

A key to help distinguish *C. ingratum* from other Indonesian taxa will be found under *C. klemmei* Elm. in the present series of notes.

Material of *C. ingratum* has been misidentified and distributed in some herbaria as *C. disparifolium* f. *eriosiphon* (Schau.) Bakh. and even as *Saxifragaceae*.

Citations: GREATER SUNDA ISLANDS: Kalimantan: *Posthumus 2084* (Bz--

19724). Kangean: *Backer 27509* (Bz--19728, Bz--19729, Bz--19730, Bz--25509, N); *Dommers 30* (Bz--19167, Bz--25499), *31* (Bz--19166), *282* (Bz-19731). Sepandjang: *Backer 28899* (Bz--19726), *29030* (Bz--19725). Sepapan: *Backer 28536* (Bz--19727, Bz--25510). NEW GUINEA: Territory of New Guinea: *Havel & Kairo NGF.17288* (Ld, Mu, Mu); *Lauterbach 810* (Bz--19732--isotype, Ld--photo of isotype, N--photo of isotype).

CLERODENDRUM INSOLITUM Mold., Amer. Journ. Bot. 38: 325. 1951.

Bibliography: Mold., Amer. Journ. Bot. 38: 325. 1951; Mold., Biol. Abstr. 26: 185. 1952; Mold. in Humbert, Fl. Madag. 174: 152, 205, 207-208, & 267, fig. 33 (4). 1956; Mold., Résumé 155 & 450. 1959; G. Taylor, Ind. Kew. Suppl. 12: 36. 1959; Mold., Fifth Summ. 1: 26 (1971) and 2: 867. 1971; Mold., Phytol. Mem. 2: 249 & 638. 1980; Mold., Phytologia 58: 188. 1985.

Illustrations: Mold. in Humbert, Fl. Madag. 174: 205, fig. 33 (3). 1956.

A small tree; branchlets and twigs slender, obtusely tetragonal, densely tomentulose-villosulous with sordid-brownish hairs on the younger parts, glabrescent on the older parts; nodes sometimes obscurely annulate on the younger twigs; principal internodes 0.5--5.5 cm. long, mostly abbreviated; leaves decussate-opposite; petioles slender, 6--12 mm. long, canaliculate above, densely puberulent or short-pubescent with subincanous hairs; leaf-blades coriaceous, rather grayish-green above, brighter green beneath, elliptic or elliptic-obovate, rarely ovate, 2--9 cm. long, 1.5--4.5 cm. wide, apically mostly rounded and subemarginate, rarely obtuse, marginally entire, basally rounded or obtuse or even acute, very finely and obscurely puberulous above, scattered-pilose with flavescent hairs and densely resinous-granular beneath; midrib rather slender, flat above, prominent and very densely flavidous-pubescent beneath; secondaries slender, 5--7 per side, arcuate-ascending, rather irregularly branched, prominulous above and beneath, arcuately joined in many loops near the margins; veinlet reticulation fine, abundant, prominulous on both surfaces; inflorescence axillary, abundant on the young twigs, a pair at each upper node, 5--7 cm. long, divaricate, 1--3-flowered, conspicuously bracteolose in involucrate fashion; peduncles very slender, 1.4--3.7 cm. long, usually rather densely short-pubescent with flavidous hairs; bracts large, foliaceous, pale reddish-green, membranous, a pair at the apex of the peduncles and a pair subtending each lateral flower when the cyme is 3-flowered, ovate-elliptic, 8--10 mm. long, 5--6 mm. wide, apically blunt or obtuse, marginally entire, basally rounded, sessile, subglabrate above, sparsely pilosulous and resinous-granular beneath, conspicuously venose, the venation slightly prominulous on both surfaces; pedicels filiform, 2--15 mm. long, more or less strigillose or glabrescent; calyx campanulate, membranous, pale reddish-green, 10--14 mm. long, 7--9 mm. wide, venose, minutely and obscurely strigillose or glabrate, more or less resinous-granular on the outside, its rim 4- or 5-lobed, the lobes ovate, erect, about 3 mm. long, apically sharply acute, venose; corolla dark-purple, tubular, about 1.5 cm. long, dorsally densely pubescent with antrorse substrigose hairs, its limb small, 7--8 mm. wide, the lobes 2--4 mm. long, dorsal-

ly strigose-pubescent; stamens dark-purple; style and stigma pale-yellow; fruiting-calyx hardly accrescent, inflated, membranous, about 15 mm. long and 11--12 mm. wide, very minutely strigillose-puberulent or glabrate; fruit more or less woody, 4-celled, each cell 1-seeded, the seeds attached at the middle of the central angle of the cell.

This endemic species is based on *Humbert 20756* from siliceous sand in a shady littoral forest at Vinanibe, near Fort Dauphin, Madagascar, at 5--50 m. altitude, collected on April 2, 1947, and deposited in the Paris herbarium. The species is known only from sand-dunes and other sandy coastal areas. A key to help distinguish it from the other known Madagascar taxa will be found under *C. baronianum* Oliv. in the present series of notes (58: 184--190).

Citations: MADAGASCAR: *Decary 4221* (P), *4288* (P); *Humbert 20756* (E--photo of type, F--photo of type, Ld--photo of type, N--photo of type, P--type).

CLERODENDRUM INTERMEDIUM Cham., Linnaea 7: [105] (sphalm. "150")--106. 1832.

Synonymy: *Clerodendron paniculatum* Perrottet, Mém. Soc. Linn. Paris 3: 110. 1824 [not *C. paniculatum* L., 1767]. *Volkameria inermis* Blanco, Fl. Filip., ed. 1, 511. 1837 [not *V. inermis* L., 1753]. *Bolkameria casopanguil* Blanco, Fl. Filip., ed. 2, 356. 1845. *Volkameria casopanguil* Blanco ex Fern.-Villar & Naves in Blanco, Fl. Filip., ed. 3, 4: pl. 173. 1880. *Clerodendron intermedium* Cham. apud Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893. *Volkameria inermis* (haud L.) Blanco ex H. Hallier, Meded. Rijks Herb. Leid. 37: 80 in syn. 1918. *Clerodendron blumeanum* Hallier f. ex E. D. Merr., Enum. Philip. Flow. Pl. 3: 402 in syn. 1923 [not *C. blumeanum* Schau., 1847]. *Clerodendron squamatum* H. Lam ex E. D. Merr., Enum. Philip. Flow. Pl. 3: 402 in syn. 1923 [not *C. squamatum* Vahl, 1791]. *Clerodendron intermedium* C. & S. ex Mold., Alph. List Inv. Names Suppl. 1: 6 in syn. 1947. *Clerodendron intermedium* Champ. apud Masamune, Sci. Rep. Kanazawa Univ. 4: 49 sphalm. 1955.

Bibliography: Perrottet, Mém. Soc. Linn. Paris 3: 110. 1824; Cham., Linnaea 7: [105] (sphalm. "150")--106. 1832; Blanco, Fl. Filip., ed. 1, 511--512. 1837; Maund, Botanist 1: pl. 13. 1837; Steud., Nom. Bot. Phan., ed. 2, 1: 383. 1840; D. Dietr., Syn. Pl. 3: 617. 1843; Blanco, Fl. Filip., ed. 2, 356. 1845; Walp., Repert. Bot. Syst. 4: 101 & 114. 1845; Schau. in A. DC., Prodr. 11: 669. 1847; Hassk., Retzia 1: 62. 1855; Buek, Gen. Spec. Syn. Candoll. 3: 106. 1858; Miq., Fl. Ned. Ind. 2: 880. 1858; Fern.-Villar & Naves in Blanco, Fl. Filip., ed. 3, 2: 294 (1878), 4: Nov. App. 161 (1880), and 6: pl. 173. 1880; Mercado, Lib. Med. 45. 1880; Vidal y Soler, Phan. Cuming. Philip. 5 & 135. 1885; Vidal y Soler, Rev. Pl. Vasc. Filip. 221. 1886; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561 (1893) and imp. 1, 2: 1219. 1895; E. D. Merr., Philip. For. Bur. Bull. 1: 52. 1903; E. D. Merr., Philip. Journ. Sci. Bot. 1, Suppl. 1: 122 (1906) and 3: 431. 1908; E. D. Merr., Fl. Manila, imp. 1, 401--403. 1912; Backer, Tropische Natuur 5: 87. 1916; H. Hallier, Meded. Rijks Herb. Leid. 37: 78 & 80--81. 1918; E. D. Merr., Sp. Blanc. 335. 1918; H. J. Lam, Verbenac. Malay. Arch. 298, 302, & 363. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot.

Buitenz., ser. 3, 3: 93, 109, & ix. 1921; E. D. Merr., Bibl. Enum. Born. Pl. 517. 1921; E. D. Merr., Enum. Philip. Flow. Pl. 3: 400 & 402. 1923; Stapf, Ind. Lond. 6: 544. 1931; Crevost & Pételot, Bull. Econ. Indo-chine 37: opp. 1296. 1934; Juliano & Guerrero, Philip. Agr. 24: 22--26. 1935; Madrid Moreno, Declar. Virt. Arb. Pl. 131, 132, & 174. 1936; Mold., Alph. List Comm. Names 2--4, 10, 13, 15, 17--19, 23, & 27. 1939; Mold., Prelim. Alph. List Inv. Names 7, 18, 21, 22, & 53. 1940; Worsdell, Ind. Lond. Suppl. 1: 238. 1941; Mold., Alph. List Inv. Names 6, 16, 19, 20, & 56. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 58, 62--66, 72, & 90. 1942; Mold., Phytologia 2: 100. 1945; Mold., Alph. List Cit. 1: 5, 135, 194, 222, 225, & 320. 1946; Hill & Salisb., Ind. Kew. Suppl. 10: 55. 1947; Mold., Alph. List Inv. Names Suppl. 1: 6. 1947; Mold., Alph. List Cit. 2: 462, 463, 556, & 561 (1948), 3: 707, 727, 740, 765, 837, 840, 842, 859, 960, & 969 (1949), and 4: 1019, 1061, 1104, 1111, 1123, 1140, 1161, 1198, & 1240. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 133, 141, 143, 145, 146, 159, & 182. 1949; Quisumb., Philip. Dept. Agr. Tech. Bull. 16: 1045. 1951; Masamune, Sci. Rep. Kanazawa Univ. 4: 49. 1955; Mold., Résumé 172, 174, 183, 188, 192--194, 216, 237, 260, 265, 267, 269, 391, 392, & 450. 1959; Rennó, Levant. Herb. Inst. Agron. Minas 149. 1960; Hansford, Sydowia Ann. Myc., ser. 2, Beih. 2: 694. 1961; Mold., Résumé Suppl. 3: 21. 1962; Mold., Biol. Abstr. 47: 6794. 1966; E. D. Merr., Fl. Manila, imp. 2, 401--403. 1968; Mold., Résumé Suppl. 16: 12. 1968; Mold., Fifth Summ. 1: 292, 313, 315, 322, 359, 398, 440, 448, 452, & 456 (1971) and 2: 732, 733, & 867. 1971; Altschul, Drugs Foods 247. 1973; Gibbs, Chemotax. Flow. Pl. 3: 1752. 1974; Hsiao, Fl. Taiwan 4: 420 & 423 (1978) and 6: 121. 1980; Mold., Phytol. Mem. 2: 281, 304, 306, 313, 349, & 538. 1980; Mold., Phytologia 50: 253. 1982; H. N. & A. L. Mold. in Dassan. & Fosb., Rev. Handb. Fl. Ceyl. 4: 448. 1983; Raj, Rev. Palaeobot. Palyn. 39: 358 & 374. 1983; Mold., Phytologia 57: 339 (1985), 58: 195--199, 287, 345, & 416 (1985), and 61: 88, 101, & 166. 1986.

Illustrations: Maund, Botanist 1: pl. 13, 1837; Fern.-Villar in Blanco, Fl, Filip., ed. 3, 6: pl. 173. 1880; Crevost & Pételot, Bull. Econ. Indo-chine 37: opp. 1296. 1934.

A small, erect, branched bush or shrub, 1--2 m. tall, or small tree to 5 m. tall; bark greenish; inner bark pale-green or dark-greenish; sapwood green-whitish; stems tetragonal or subterete, about 1 cm. in diameter at breast height or "a few inches thick, branched from below the middle; main branches widely spreading, recurved, re-branched; wood very soft and pulpy, white; pith large, brown; bark lateritious, yellow-gray on the branches and green beneath the epidermis; branchlets and twigs rather stout, to 2.5 cm. in girth, suberect, very medullose, green or brown, obtusely or acutely tetragonal, very minutely and obscurely pulverulent-puberulent; nodes annulate, the lower ones marked with a narrow band of hirsute hairs; principal internodes 4.5--6 cm. long; leaves decussate-opposite, horizontal; petioles green, stout, 2.3--7.5 cm. long or "occasionally a yard long" (fide Elmer), the lowest 1 cm. often collapsing on larger leaves, very obscurely pulverulent-puberulent or glabrous; leaf-blades chartaceous or subcoriaceous, broadly ovate, 7--30 cm. long, 6.5--26 cm. wide, apically abruptlv a-

cute or subacuminate, marginally denticulate, basally deeply cordate, shiny and darker green above, obscurely pulverulent or glabrous and often abundantly light-dotted above, sometimes strigillose with distantly scattered hairs, obscurely pulverulent and densely squamulose beneath; midrib stoutish or slender, flat or subimpressed above, prominent beneath; secondaries slender, 5--7 per side, the 2--4 lowest issuing palmately from the leaf-base, flat or subprominulent above, prominulent beneath; vein and veinlet reticulation comparatively distant and angular, obscure or the larger parts subprominulent above, conspicuous but not at all prominulent beneath; inflorescence terminal, erect, paniculate, 18--30 cm. long, 15--20 cm. wide, composed of 6 or 7 pairs of lax, divaricate cymes, many-flowered, all parts fiery-red or miniaceous in bud; peduncles and sympodia continuous with the twigs and similar in all respects, variable in length; pedicels slender, variable, 1--13 mm. long, glabrate; bracts large and foliaceous, oblong-elliptic, 1--4.5 cm. long, 3--20 mm. wide, long-stipitate, a pair subtending the inflorescence; bractlets oblong or lanceolate to broadly linear, numerous, to 1 cm. long and 2 mm. wide; prophylla oblong or linear, to 5 mm. long; flowers odorless; calyx-lobes red "to black" (fide Elmer), ovate, apically acute, about 1/5 the length of the corolla-tube; corolla bright-red, the tube slender, about 1 cm. long, the limb 5-lobed, the lobes oblong, subequal, spreading; stamens red or purplish, about 2 cm. long, deflexed or recurved; fruiting-calyx enlarged, star-shaped, red, 1 cm. wide, spreading or reflexed; fruit drupaceous, round or depressed-globose (oblate), at first green, later blue, 6--10 mm. long and wide, enclosed when immature, composed of 4 pyrenes which are chartaceous and 1-seeded.

Merrill (1923) says of this species that it is found "Throughout the Philippines in thickets, secondary forests, and open damp places at low and medium altitudes, often common" and that it occurs also in Formosa, Borneo, Celebes, and Sumatra. He continues: "Bakhuizen, perhaps correctly, reduces this to *Clerodendron squamatum* Vahl". Actually, *C. squamatum* Vahl is a synonym of *C. kaempferi* (Jacq.) Sieb. and is quite distinct. On his collection *no. 19* Merrill notes: "widely distributed in damp open places in Luzon".

Collectors have encountered *C. intermedium* in damp soils in old clearings and open places in general, secondary forests, thickets along the edges of lakes, wet stony soil of wooded ravines and parang, on hillsides, near rivers, and along paths in forested valleys and streams, at 20 to 3500 feet altitude, in anthesis in every month of the year, and in fruit in January, April, May, and October. MacDaniels refers to it as "common in pasturelands, occasionally cultivated" in Luzon; Cana calls it a "weed". Gates refers to it as a "tree" in Luzon and Tiong describes it as "a 6-foot ornamental tree" in Sabah.

The corollas are said to have been "red" on *Clemens 17072*, *MacDaniels 113*, *Termiji SAN.81251*, and *Williams 2584*, "reddish" on *Tiong SAN.88038*, "scarlet" on *Walker 7450*, "blood-red" on *Ramos & Edaño*, *Herb. Philip. Bur. Sci. 47107*, "fiery-red" on *Hallier 4090a*, "fiery-red or miniaceous" on *Elmer 13641* and "red and white" on *Wenzel 3292*.

Common and vernacular names reported for this species are "alocasoc", "aloksok", "aguargai", "asuañgai", "balantana", "bantana",

"cali-cali", "casopanggil", "casopangil", "casupanguil", "colocolog", "dagtung", "dayugdug kilat", "fun nam", "humang", "igiñga", "kalalauan", "kasopangil", "kasopáñgil", "kássŭ pánggil", "kasupángil", "katuñgátun", "kolokolog", "laroan anito", "laroan-anito", "libintano", "macalalauang", "makakalalawang", "mayitum", "mô dô", "pacipis", "pakapis", "salinguák","talinongay", and "volcameria casopanguil".

Madrid Moreno (1936) refers to the species as medicinal. Altschul (1973) asserts that the leaves, "with coconut oil", are applied as a plaster to treat headaches, citing, as authority, *Gutiérrez 61-19*. Gibbs (1974) reports the presence of cyanogenesis in the stems, but not in the foliage.

Hansford (1961) reports the species attacked by the fungus, *Meliola clerodendri* P. Henn. in the Philippine Islands, based on *Stevens 337* & *1985*.

Vidal (1885) cites *Cuming 481* from the Philippines. The *Reasoner Bros. s.n.*, cited below, was collected from plants cultivated in Florida, but originally from the Philippines.

Among the inaccuracies and errors in the literature of *Clerodendrum intermedium* may be mentioned that the original Chamisso (1832) reference is cited to page "150" by Dietrich (1843), Jackson (1893), Merrill (1918), and Hsiao (1975) because of a printer's error in designating the first page of the discussion by Chamisso -- the page number should have been printed "105" and is correctly cited as such by Hallier (1918) and Merrill (1923). Hallier, however, erroneously cites the Miquel (1858) reference to this species as "1856" -- pages 705--880 of Miquel's work were not issued until April 8, 1858. The *Cuming 481*, cited below, is sometimes incorrectly cited as "*Cumming 1481*".

The illustration of *C. intermedium* in Maund (1837), hand-colored, shows the corollas scarlet in color in the New York Botanical Garden library copy, but only as pink in the herbarium copy.

Bolster, in the notes accompanying his collection, cited below, refers to the leaves with "lower lobes 4 cm. longer", implying lobed leaf-blades as in *C. paniculatum* L., but I have never seen any lobes on the leaf-blades of *C. intermedium*. Perhaps he meant to say "lower leaves 4 cm. longer". It should be noted that *Elmer 13641* and *Hutchinson, Philip. For. Bur. 4827* show remarkable resemblance to *C. bethunianum* Low, an obviously very closely related species.

Blanco (1837) states that the young shoots and flowers of *Clerodendrum intermedium* are dried and powdered and the powder then placed in the navel and/or umbilical cord of the mother to combat the effects of a baby's death in the womb. "Tiene el olor fastigioso, y los indios la usan bastante en la esta muerta la criatura en el vientre. Su raiz se dice ser purgante tomada en peso de una dracma; pero creo que es falso. Siempre estacon flores."

Masamune (1955) erroneously places *C. intermedium* in the synonymy of *C. japonicum* (Thunb.) Sweet -- along with *C. squamatum* Vahl, *C. viscosum* Vent., and *C. infortunatum* L.!

An interesting example of the difficulty in distinguishing some species of this group in the genus is seen in the case of the *Tsang, Tang, & Fung 7674* collection -- it was apparently first identified as

C. *paniculatum* L,, later corrected to C. *squamatum* Vahl, then to C. *japonicum* (Thunb.) Sweet, then, still later, to C. *kaempferi* (Jacq.) Sieb., and, finally, to C. *intermedium* Cham.

Keys to help distinguish C. *intermedium* from other Chinese and other cultivated taxa in this genus will be found under C. *canescens* Wall. (58: 416) and C. *bethunianum* Low (58: 195--198). Another key that may prove useful is provided by Hsaio (1978) to distinguish it from other Taiwanese species known to him. Slightly modified by me, this is his key:

1. Twining shrubs.....C. *thomsonae*.
1a. Erect shrubs.
  2. Inflorescence axillary, 3-flowered; calyx-rim truncate.C. *inerme*.
  2a. Inflorescence terminal, in many-flowered cymes or panicles; calyx lobed.
    3. Inflorescence in globose cymose heads; bracts foliaceous.
      4. Calyx and bracts shorter than or as long as the fruits, with large peltate glands.....C. *philippinum*.
      4a. Calyx and bracts much longer than the fruits, without peltate glands.....C. *canescens*.
    3a. Inflorescence composed of loose cymes or elongated thyrsi; bracts small, linear.
      5. Leaf-blades with many sand-like glands beneath.
        6. Leaf-blades marginally shallowly toothed, not lobed; inflorescence bright-red.....C. *intermedium*.
        6a. Leaf-blades 3--5-lobed; inflorescence orange-red..... C. *paniculatum*.
      5a. Leaf-blades without sand-like glands beneath.
        7. Leaf-blades elliptic-lanceolate; corolla-tube short, to 1 cm. long.....C. *cyrtophyllum*.
        7a. Leaf-blades ovate to elliptic; corolla-tube oblong, to 3.5 cm. long.
          8. Branchlets, leaves, and inflorescence densely covered with rust-colored tomentum.....C. *trichotomum* var. *ferrugineum*.
          8a. Branchlets, leaves, and inflorescence glabrous or slightly brownish-puberulent.
            9. Sepals reddish; leaf-blades ovate, pubescent..... C. *trichotomum*.
            9a. Sepals greenish; leaf-blades ovate-lanceolate, subglabrous.....C. *trichotomum* var. *fargesii*.

Because of the confusion in herbaria and literature, it seems worthwhile to quote here Chamisso's original (1832) detailed description and discussion of C. *intermedium*: "caule acute quadrangulo, foliis profunde cordatis ovatis acuminatis acutis subangulatis mucronato-dentatis, supra pilosis, subtus squamatis, panicula terminali glabriuscula e cymis bisbifidus ramulis multifloris constante laciniis calycinis ovatis acutis glabris brevibus quinquies brevioribus tubo corollae vix viscidulo-puberulo, genitalibus corollam plus duplo superantibus. E Luçonis retulimus. Inter C. *squamatum* Vahl (HW. no. 11688 spec. Klein Marmelon Ind. orient. et *Volkameria Kaempferi* Jacq.

ibid. 11683. spec. hort.) et C. *paniculatum* L. (HW. 11689) ambit, proximum superiori, a quo calycibus potissimum differt, floribus insuper multo gracilioribus dimidio fere minoribus, caule acutangulo et foliis non orbiculato, sed ovato-cordatis, antice longius productis, margine conspicius grosse dentatis, dentibus obtusangulis mucronulatis. C. *squamato* nempe laciniae calycinae subpetaloideae, coloratae, lanceolatae, sub anthesi quatuor lineas longae longioresque dimidium tubum corollinum aequant vel superant. Nostro vero vix lineam sunt longae, tubo corollino gracili quinque lineas circiter longo, limbo laciniis oblongis obtusis patente, diametro vix longitudinem tubi aequante, genitalium exserta parte fere pollicari. Similius est floribus C. *paniculato,* qui vero tota inflorescentia uberius viscidulo-puberula et corollae longius tubulosae; diversissimum ab illo foliis. Specimina nostra sunt summitates caulium herbaceae, acutangulae, fistulosae, fere glabrae, ad nodos ut affinium specierum barbatae, paucis foliorum superiorum paribus instructae. Inferiora desunt. Tale folium superius minusque ab insertione petioli ad apicem 3½ poll. metitur, cui longitudini accedit mensura loborum deflectorum 9-lineari, maxima latitudine 2-poll. 9-lin., petiolo 9-lineari. Consistentia, pili superioris paginae, squamulae inferioris omnino laudatarum specierum. Inflorescentia prorsus eadem. Bracteae ramos suffulcientes, superiores saltem, spathulatae, integerrimae; similes at minores ad bifurcationem ramorum. Calyx fructifer auctus, stellatus, diametro 5-lineari. Fructibus bididymus, e quatuor quasi globulis conferruminatis constans, diametro circiter trilineari, reticulatus, glaber; bacca tetrapyrena, pyrenis consistentia chartacea monospermis."

Blanco's *Volkameria inermis* was described by him (1837) as follows: "Volcameria sin espinas. Tallo de recho cuadrado, salpicado de pequeños puntos salientes. Hojas opuestas, alguna vez en estrella de tres en tres, algo acorazonadas, con dientes puntiagudas en las orillas, pelosas por arriba, y con pequeños puntos borrosos á modo de serrin. Peciolos largos. Flores terminales, en panojas umbeladas. Involucro de la umbela parcial, una hojuela con piececito, lanceolada, con tres nervios y barbas blandas en la base. Cal. inferior, tubulado con cinco dientes del color de la corola, y en la madurez grande, revuelto acia abajo. Cor. bilabiada, con el tubo mui largo cilindrico, garganta desnuda, y el labio superior con dos lacinias divergentes: el inferior con unas rayas blancas y con tres lacinias casi iguales. Estam. cuatro, que se inclinan á un mismo lado, fijos cerca de la garganta de la corola, larguisimos casi iguales; pero en la insercion los dos mas altos que los otros. Ant. hechadas sobre los filamentos. Estilo del largo de los estambres. Estigma bifido. Baya deprimida con cuatro lobulos, y un aposento, que contiene cuatro huesecillos, y en cada uno una semilla. = Esta planta conocida y notable por la multitud de sus flores encarnadas, se eleva á la altura de seis ó siete pies. Tiene el olor fastidioso, y los indios la usan bastante en la medicina. Sus cogollos y flores se aplican machacadas al ombligo de la muger parturiente, cuandro esta muerta la criatura en el vientre. Su raiz se dice ser purgante tomada en peso de una dracma; pero creo que es falso. Siempre estacon flores. *T, Casopangil, Laroan Anito, Macalalauang, Igiñga. B, Asuangai, Pacapis, Colocolog, Alocasoc." In his

1845 edition he adds "Esta especie y la siguiente, mas bien del género *Clerodendron*?" In the Fernandez-Villar edition (1880) he cites *Cuming 481* and states that living plants were observed by him in Luzon, Mindanao, Panay, Cebu, and Jolo in the Philippines.

Merrill (1908) cites *Fénix 4145* from Camiguin and comments that the plant is "Very common and widely distributed in the Philippines; endemic, but with very closely allied forms found in Formosa and in Celebes." Actually, however, at least some of the plants in Formosa and Celebes seem to be conspecific. In his 1918 work he cites *Merrill Sp. Blanc. 43*, collected by Quisumbing at Los Baños, Laguna Province, Luzon, on June 25, 1914, as a good illustrative collection, commenting, again, that "This species is common and widely distributed in the Philippines at low and medium altitudes and is commonly known to the Tagalogs as casopanguil. There is no doubt whatever as to the identity of Blanco's *Volkameria casopanguil*, and further no doubt whatever as to its identity with *Clerodendron intermedium* Cham., the type of which was from Luzon, either the Province of Cavite or Batangas."

Backer (1916), in his discussion of what he called *C. squamatum* Vahl, very truly remarks that "Veranderlijk wat betreft de lengte van kelk en kroonbuis. De javaansche exemplaren behooren alle tot de varieteit *japónicum* Hasskarl, waarbij de kelk 10--17 mM hoog is en de kroonbuis 15--20 mM lang. Op Sumatra en ook elders vindt men den typischen vorm, waarbij de kelk 8--10 mM, de kroonbuis 18--25 mM lang is. Op de Philippijnen treft men, behalve deze beide vormen, nog een tusschenvorm aab." His *C. squamatum* we now call *C. kaempferi* (Jacq.) Sieb., his var. *japonicum* is *C. japonicum* (Jacq.) Sieb., and his "intermediate" Philippine form is *C. intermedium* Cham. or *C. bethunianum* Low.

Hallier (1918) cites *Beccari 817* and *Buitendijk s.n.* from Sumatra, *Elbert 3413* and *Weber s.n.* from Celebes, *Elmer 13641* from Mindanao, *Celestino 7335* and *Elmer 9763* from Negros, and *Cuming 481*, *Hallier 4090* & *4090a*, and *Merrill 19* from Luzon, also reporting its use there in the treatment of headaches.

Hsiao (1932) cites *Hsieh 20* from Taiwan, noting that the species is found only in the southernmost part of the island, but also in "The Philippines and Borneo".

Material of *Clerodendrum intermedium* has been misidentified and distributed in some herbaria as *C. bethunianum* Low, *C. japonicum* (Thunb.) Sweet, *C. kaempferi* (Jacq.) Sieb., *C. paniculatum* L., *C. squamatum* Vahl, and *Volkameria kaempferi* Jacq. On the other hand, the *Bawan & Borromeo, Philip. For. Bur. 24284*, *Edaño, Philip. Bur. Sci. 24845 26959*, *Edaño, Philip. Nat. Herb. 3524*, *Elmer 9763* & *14504*, *Foxworthy, Philip. Bur. Sci. 786*, *Herb. Philip. Bur. Sci. s.n.*, *Mangubat, Philip. Bur. Sci. 383*, *McGregor 221* & *Philip. Bur. Sci. 1725*, *Mearns 23* & *24*, *Merrill 3153*, *Meyer, Philip. For. Bur. 2177*, and *Santos 4193*, distributed as *C. intermedium*, actually are *C. bethunianum* Low, while *Fisher 35509* and *Mello Barreto 4387* are *C. bungei* Steud., *Herb. Usteri s.n.* [23/XII/02], *Mello Barreto 4386*, *Mendoza 1518*, and *Philip. Nat. Herb. 18525* are *C. kaempferi* (Jacq.) Sieb., and *DeVore & Hoover 177* and *Loher 4423* are *C. puberulum* Merr.

Citations: CHINESE COASTAL ISLANDS: Hainan: *Tsang, Tang, & Fung*

7674 (N). PHILIPPINE ISLANDS: Alabat: *Ramos & Edaño, Philip. Bur. Sci. 48241* (Ca--321725). Basilan: *DeVore & Hoover 60* (W--449588). Luzon: *Ahern's Collector s.n.* [Merrill, Dec. Philip. For. Fl. 35] (It, Mi, Os, W--447322); *N. J. Andersson s.n.* [Manila, Jan. 1853] (S, S); *Bacani, Philip. For. Bur. 16503* (Bz--20636); *Baltazar s.n.* [F. C. Gates 7907] (Mi); *Bartlett 14174* (Mi); *Borden, Philip. For. Bur. 1324* (W--449981); *Cana s.n.* [Dec. 20, 1930] (Du--222740); *Castillo, Philip. Bur. Sci. 22745* (Bi, W--897931); *Clemens 17072* (Ca--285317); *Elmer 5728* (N, W--852967), *6581* (W--853631), *8084* (Bz--20635, N), *17610* (Bi, Bz--20628, N, W--1237205); *Eschscholtz s.n.* [Manila] (L); *Fénix. Philip. Bur. Sci. 28050* (W--1293796); *Fox, Philip. Nat. Herb. 4666* (Mi); *F. C. Gates 5287* (Ws); *Haenke 572* (N), *573* (N); *Holman 72* (Gg--32019); *MacDaniels 113* (Ba); *E. D. Merrill 19* (Bz--20634, N, W--435019), *1850* (W--436803), *2717* (W--437685); *Miranda s.n.* [May 1910] (Mi); *Quisumbing 289* (Mi), *651* [Merrill Sp. Blanc. 43] (Bz--20629, N, W--903710), *2164* (Ok--17322), *2267* (Ok--17112); *M. Ramos 1889* (Bz--20633), *Philip. Bur. Sci. 2643* (Br, L), *Philip. Bur. Sci. 8098* (L); *Ramos & Edaño, Philip. Bur. Sci. 45357* (Ca--308765), *Philip. Bur. Sci. 47107* (Ca--309735); *C. B. Robinson, Philip. Bur. Sci. 6824* (Bz--20637); *Rodbertus s.n.* [Manila] (B); *F. L. Stevens 669* (Ur); *E. H. Walker 7450* (W--2159176); *Whitford 483* (W--851631), *854* (W--851806); *Wilkes s.n.* [Mts. Luzon] (T, W--40645); *R. S. Williams 2063* (N, N); *Wöhler 49* (S); *Wood, Philip. For. Bur. 13058* (Cm). Masbate: *E. D. Merrill 3065* (W--438035). Mindanao: *Ahern 327* [field no. 27] (W--445667, W--445668), *327Q* (Bz--20630, Bz--20631); *Bolster 241* (Ca--183429); *Elmer 13641* (Bi, Bz--20624, Ca--272949, L, N, Ut--33527, W--1172299); *Hutchinson, Philip. For. Bur. 4827* (N, W--708951); *Wenzel 3292* (Bz--20632, Ca--356194); *C. M. Weber 1101* (Cm); *R. S. Williams 2584* (N). Mindoro: *Bartlett 13431* (Mi). Negros: *Usteri s.n.* [23/XII/02] (N, N). Panay: *C. B. Robinson, Philip. Bur. Sci. 18113* (W--568629). Island undetermined: *Cuming 481* (L, L, X); *Née 11* (Q), *23* (Q). GREATER SUNDA ISLANDS: Celebes: *Buwalda 3800* (Bz--72914); *Donggala 70* (Bz--20648). Sabah: *Kokawa & Hotta 4822* (Sn--100162); *Termiji SAN.81251* (Sn--46720); *Tiong SAN.88038* (Sn--55673). Sumatra: *Bartlett 8700* (Mi); *Bünnemeijer 3110* (Bz--20695, Bz--20696). CULTIVATED: California: *Walther s.n.* [Sept. 1928] (Gg--159825). Florida: *Reasoner Bros. s.n.* [Oneco 1914] (Ar--19851). Germany: *Herb. Hort. Bot. Berol. s.n.* [1837] (B), *s.n.* [Aug. 1844] (B). Honduras: *P. C. Standley 56847* (A, F--582156, Ld--photo, N--photo, W--1409428). Philippine Islands: *Cana s.n.* [College Campus, Dec. 20, 1930] (Hp); *Garcia s.n.* [Manila J. Bot.] (V); *Wichura 1796* (B). LOCALITY OF COLLECTION UNDETERMINED: *Marcovicz s.n.* [27.VII.26] (L). MOUNTED ILLUSTRATIONS: Crevost & Pételot, Bull. Econ., Indochine 37: opp. 1296. 1934 (Ld); Maund, Botanist 1: pl. 13. 1837 (N).

CLERODENDRUM INTERMEDIUM f. *ALBIFLORUM* Mold., Résumé Suppl. 3: 21 nom. nud. 1962; Phytologia 12: 477. 1966.

Bibliography: Mold., Résumé Suppl. 3: 21. 1962; Hocking, Excerpt. Bot. A,11: 103. 1966; Mold., Biol. Abstr. 47: 6794. 1966; Mold., Phytologia 12: 477. 1966; Mold., Fifth Summ. 1: 315 (1971) and 2: 867. 1971; Mold., Phytol. Mem. 2: 306 & 538. 1980.

This form differs from the typical form of the species in having white corollas.

The form is based on an unnumbered Francesco Guerrero [sphalm: "Fuerrero"] collection from Arayat, Panpanga Province, Luzon, Philippine Islands, collected in 1927 and deposited in the University of California herbarium at Berkeley. The collector notes: "En uno de las cajas que v. recibirá del transporte Thomas incluí dos plantas para que v. me dijese si el '*Clerodendron*' de flores blancas es una simple variedad de la '*intermedium*' muy conocido; pero lo que en realidad es para mí de mucho interés es el '*Hibiscus*' de flores de color de púrpurea que me remitieron de Arayat como remedio contra la tos."

Nothing further is known to me of this taxon.

Citations: PHILIPPINE ISLANDS: Luzon: F. *Guerrero s.n.* [Arayat, Panpanga Prov., 1927] (Ca--323811--type).

CLERODENDRUM INVOLUCRATUM Vatke, Linnaea 43: 537 [as "*Clerodendron*"]. 1882; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 53 & 90. 1942.

Synonymy: *Clerodendron involucratum* Vatke, Linnaea 43: 537. 1882. *Dirichletia involucrata* J. G. Baker, Journ. Linn. Soc. Lond. Bot. 22: 482. 1887. *Dirichletia sphaerocephala* J. G. Baker, Journ. Linn. Soc. Lond. Bot. 25: 321--322. 1890. *Dirichletia involucratum* Baker apud Verdcourt, Kew Bull. Misc. Inf. 1953: 119 in syn. 1953.

Bibliography: Vatke, Linnaea 43: 537. 1882; J. G. Baker, Journ. Linn. Soc. Lond. Bot. 22: 482. 1887; J. G. Baker, Journ. Linn. Soc. Lond. Bot. 25: 321--322. 1890; Jacks in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 561. 1893; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 53 & 90. 1942; Jack. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 561. 1946; Mold., Alph. List Cit. 2: 537. 1948; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 123 & 182. 1949; Verdcourt, Kew Bull. Misc. Inf. 1953: 119--120. 1953; Mold. in Humbert, Fl. Madag. 174: 150, 181-183, 266, & 268, fig. 29 (7--9). 1956; Anon., Kew Bull. Gen. Ind. 77. 1959; Mold., Résumé 155, 278, & 450. 1959; Mold., Fifth Summ. 1: 260 & 477 (1971) and 2: 867. 1971; Mold., Phytol. Mem. 2: 249 & 538. 1980; Mold., Phytologia 58: 186. 1985.

Illustrations: Mold. in Humbert, Fl. Madag. 174: 183, fig. 29 (7--9). 1956.

A shrub, 2 m. tall, or small tree, sometimes merely suffrutescent; branches medium-stout, obtusely tetragonal, compressed at the nodes, grayish, minutely puberulent or glabrescent; branchlets and twigs numerous, slender, often short, mostly obscurely tetragonal, very densely puberulent with flavidous or cinereous hairs on the youngest parts, less densely so on the older parts, often somewhat compressed at the nodes; nodes sometimes more or less annulate; principal internodes mostly much abbreviated on the twigs, 0.2--3.7 cm. long, elongate to 7 cm. on the branches; leaves decussate-opposite or subopposite, caducous; petioles rather slender, 6--18 mm. long, often more or less recurved, densely puberulent, canaliculate above; leaf-blades membranous, rather uniformly dark-green on both surfaces or somewhat lighter beneath, oblong or elliptic, 3.5--10.5 cm. long, 2.5--6 cm. wide, apically acute or short-acuminate, marginally entire, basally (sometimes unequally) acute or short-acuminate, densely velutinous-puberulent or short-pubescent on both surfaces or only sparsely so above

in age, or canescent-tomentose beneath; midrib slender, flat above, prominent beneath; secondaries slender, 6--9 per side, arcuate-ascending, flat above, prominulous beneath, not distinctly anastomosing; inflorescence axillary, capitate, normally 2 per node at or near the top of the twigs; peduncles slender or stoutish, 2.5--6 cm. long, densely or rather sparsely flavidous-puberulent; cymes conspicuously involucrate, 1.5--2.5 cm. long, 3--5 cm. wide, densely many-flowered, capitate; bracts foliaceous, ovate, to 2.5 cm. long and 2 cm. wide, puberulent on both surfaces, apically short-acuminate; pedicels very short or obsolete; calyx infundibular-tubular, about 1.4 cm. long, its tube 5--6 mm. long, externally scattered-pilosulous, the rim deeply 5-lobed, the lobes attenuate-ovate or deltoid, 5--9 mm. long, basally to 1.2 mm. wide, scattered-pilosulous; corolla hypocrateriform, white or pinkish to wine-reddish or rose, the tube extremely slender, 2--3 cm. long. about ¼ longer than the calyx, externally pilose above the calyx, the throat not dilated, the limb small, only about 5 mm. in diameter, the lobes densely or sparsely pilose on both surfaces, the 2 posterior ones shorter; stamens somewhat exserted; filaments glabrous; anthers oblong, about 1 mm. long, basally bifid; fruiting-calyx somewhat enlarged and indurated.

This species is endemic to Madagascar and is based on *Hildebrandt 3438* from near Mojanga in western Madagascar, collected in May, 1880, and deposited in the Kew herbarium. *Dirichletia involucrata* is based on *Baron 397a* and *D. sphaerocephala* on *Baron 5425*, both from Madagascar, the latter from the northwestern section of the island; *D. involucrata* is not a transfer of the *Clerodendron involucratum* of Vatke, but is an entirely new name, based on a different type.

Vatke (1882) comments that his species is "C. *stenantho* Klotzsch... proximum, corollae partibus multo minoribus, indumento foliorumque figura diversum"; *Clerodendrum stenanthum* is now known as C. *mossambicense* Klotzsch.

Although *Clerodendrum involucratum* is only known from Madagascar, the Index Kewensis lists it as from "trop. Afr." It has been encountered by collectors in forest-savanna country, in primary forests, on dunes, and on dry gneiss hills, at 810 m. altitude, in flower in February, March, and May.

The corollas are described as having been "white" on *Decary 19019*, "rose" on *Hildebrandt 3438* and *Perrier 16616*, "wine-reddish" on *Decary 18893*, and "reddish-violet" on *Croat 30576*.

A key to help distinguish this species from other Madagascar taxa in this genus will be found under C. *baronianum* Oliv. in the present series of notes (58: 184--190).

Material of C. *involucratum* has been misidentified and distributed in some herbaria as *Dirichletia* sp. in the *Rubiaceae*.

Citations: MADAGASCAR: *Baron 160* (K), *5425* (P); *Bernier s.n.* [Ambongo 1846] (P); *Croat 30576* (N); *Decary 7314* (P, W--2494791), *14404* (P), *18893* (P), *19019* (P); *Grevé 214* (P); *Hildebrandt 2923* (Mu--1621), *3438* (E--photo of type, F--photo of type, K--type, L--isotype, Ld--photo of type, Mu--isotype, N--photo of type, P--isotype), *3923* (K, L, P); *Perrier 455* (P), *10218* (N, P), *10227* (P), *16616* (P): *Perville 623* (N, P); *Scott Elliot 2033* (E--photo, F--photo, K, Ld--photo, N--photo);

Service Forestier 25 (P), 27 (P), 73 (P).

CLERODENDRUM JAPONICUM (Thunb.) Sweet, Hort. Brit., ed. 1, 1: 322. 1826.

Synonymy: *Go too vulgo go too giri* Kaempfer, Amoen. Exot. 861. 1712. *Volkameria japonica* Thunb., Nov. Act. Soc. Sci. Upsal. 3: 208. 1780. *Volkameria iaponica* Thunb., Fl. Iap. 255. 1784. *Volkameria inermis, foliis cordatis, ovatis, acutis, dentatis; racemis secundis* Thunb. ex Poir. in Lam., Encycl. Meth. Bot. 8: 689 in syn. 1808. *Clerodendrum kaempferi* Fisch. ex Steud., Nom. Bot. Phan., ed. 1, 207 nom. nud. 1821 [not *C. kaempferi* (Jacq.) Sieb., 1830]. *Clerodendron kaempferi* Fisch. ex Morr., Ann. Soc. Roy. Agr. Bot. Gandav. 1: 17 in syn. 1845. *Clerodendron kämpferi* Fisch. apud Walp., Repert. Bot. Syst. 6: 691 in syn. 1847. *Clerodendron squamatum* var. *japonicum* Hassk., Retzia 1: 63. 1855. *Clerodendron squamatum* ♂ *japonicum* Hassk., Retzia 1: 61. 1855. *Clerodendron singalense* Miq., Fl. Ned. Ind. Suppl. Sumatra 568. 1860. *Clerodendron imperialis* Carr., Rev. Hort. 46: 110. 1874. *Clerodendron japonicum* (Thunb.) Mak., Bot. Mag. Tokyo 17: 91. 1903. *Clerodendron kaempferi* "Sieb. herb. ex Miquel" apud Mak., Bot. Mag. Tokyo 17: 91 in syn. 1903. *Tei Too* Kaempf. apud Mak., Bot. Mag. Tokyo 17: 91 in syn. 1903. *Clerodendron japonicum* Mak. apud Prain, Ind. Kew. Suppl. 3: 44. 1908. *Clerodendron esquirolii* Lévl., Feddes Repert. Spec. Nov. 11: 302. 1912 [not op. cit. 298. 1912]. *Clerodendron darrisii* Lévl., Feddes Repert. Spec. Nov. 11: 301. 1912. *Clerodendron leveillei* Fedde ex Lévl., Fl. Kouy-Tchéou 442. 1915. *Clerodendron squamatum* var. *japonicum* Hassk. ex Backer, Tropische Natuur 5: 89. 1916. *Clerodendron coccineum* H. J. Lam, Verbenac. Malay. Arch. 296. 1919 [not *C. coccineum* D. Dietr., 1842]. *Clerodendron kaempferi* "Fisch. ex Steud." apud Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz,m ser. 3, 3: 109 in syn. 1921. *Clerodendron darranii* Lévl. ex P'ei, Mem. Sci. Soc. China 1 (2): 141--143. 1932. *Clerodendron japonicum* (Thunb.) Sweet ex Mold., Suppl. List Inv. Names 2 in syn. 1941. *Clerodendron imperiale* Carr. ex Mold., Alph. List Inv. Names Suppl. 1: 6 in syn. 1947. *Clerodendrum imperialis* Carr. apud Hara, Enum. Sperm. Jap. 1: 187 in syn. 1948. *Clerodendron kaempferi* Steud. spud Hara, Enum. Sperm. Jap. 1: 187 in syn. 1948. *Clerodendrum japonicum* (Thunb.) Makino apud Hara, Enum. Sperm. Jap. 1: 187 in syn. 1948. *Clerodendron japonicum* (Thub.) Sw. apud Matuda, Amer. Midl. Nat. 44: 576. 1950. *Clerodendron paniculatum* (non L.) Hook. & Arn. apud Masamune, Sci. Rep. Kanazawa Univ. 4: 49 in syn. 1955 [not *Clerodendrum paniculatum* L., 1767]. *Clerodendron japonicum* (Thunb.) Mak. ex Mold., Résume 265 in syn. 1959. *Clerodendron japonicum* Sweet ex D. R. W. Alexander, Hong Kong Shrubs 28 in syn. 1971. *Clerodendrum japonicum* Sw. ex Mold., Phytol. Mem. 2: 392 in syn. 1980. *Clerodendrum darrisii* Levl. apud Lauener, Notes Roy Bot. Gard. Edinb. 38: 484 in syn. 1980. *Clerodendrum esquirolii* Lévl. apud Lauener, Notes Roy. Bot. Gard. Edinb. 38: 484 in syn. 1980. *Clerodendrum leveillei* [Fedde ex] Lévl. apud Lauener, Notes Roy. Bot. Gard. Edinb. 38: 484 in syn. 1980. *Clerodendron squamatum* var. *javanicum* Teijsm., in herb.

Bibliography: Kaempfer, Amoen. Exot. 861. 1712; Kwa-wi [transl. Savatier], Arbor 2: pl. 10. 1759; Thunb., Nov. Act. Soc. Sci. Upsal. 3: 208. 1780.

[to be continued]